Apian
Collective Intelligence

SurveyPro 4

NetCollect User Guide

Server Installation Excerpt:
Chapters 3, 17, 18

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Chapter 3
Server Installation

If you're using QuestionWeb or SurveyHost to host your surveys, you can skip this chapter.

The server scripts are installed only once, and we recommend doing the install a week before your first survey. A smooth install takes relatively little time—a half hour or so—but as this process is dependent on your unique server environment and requires the assistance of your server administrator, it is best to allow time to resolve any permissions or configuration issues that crop up. If you do encounter problems, it is generally most effective to arrange a conference call between your server administrator and Apian's Technical Support.

Note: This chapter is written primarily for server administrators. If you are the SurveyPro user, some of the terms will probably be unfamiliar. A few sections are highlighted as for your reference, such as Permissions 101.

Chapter Contents:

Setting Up a NetCollect Survey Server

NetCollect is the Web component of the SurveyPro desktop program. Its Web server setup requires a few steps:

- Setting permissions for survey and data folders

- Running the ASP and DLL installation application

- Sending the file paths to the SurveyPro user

- Testing your setup

This one-time setup requires a server administrator log in via Terminal Services or directly to the server.

After the initial setup, the SurveyPro user will be able to post and manage their surveys through FTP or UNC file shares and the HTTP control panel. When surveys are designed and tested, it is not uncommon for the survey designer to post multiple iterations of the survey, as well as downloading data multiple times per week. If your network policies restrict FTP or LAN file permissions to IT staff only, QuestionWeb.com may be a more practical option. If you do end up having a different person Publish than the one doing analysis, be sure to send them the latest SP4 file after each Publish—working off a stale file can cause import mismatch (data corruption) problems.

Files Needed from the SurveyPro User

The server setup files are copied to the SurveyPro user's personal hard drive or to a shared LAN drive for workgroup installations. By default, they're in this folder:

```
C:\Program Files\Apian Software\SurveyPro 40\Web Server Install\ASP
```

The following files are needed by the server administrator:

- InstallNetCollectServer[version].EXE
  (Send the highest version number if you have more than one.)

- NetCollect40ServerSetup.pdf (this chapter and Publish)

- Server Crib Sheet - FTP.doc

- Server Crib Sheet - LAN.doc

Also send the SurveyPro 4.0 serial number, which can be found in SurveyPro's Help, About screen. Make sure it starts with "SP4-".

Server System Requirements

The ASP+DLL scripts require:

- Windows 2000 or 2003 (Professional or Server editions)

- "Root" or Terminal Services access by an administrator to run the installation program for the initial server setup

- UNC or FTP access by the SurveyPro user to manage surveys

If the server does not have the required VB6 Runtime module installed, the installation program will add it to the system. No SMTP connectivity is required, and the surveys operate under standard HTTP and HTTPS ports (SSL is only used if the survey designer specifies it in the paths).

NetCollect does not require any databases on the server, but it will connect via SQL strings to any you specify for a particular survey. See *Embedded Surveys* on page 187.

Script Versions

To minimize server maintenance, the NetCollect server scripts change versions less frequently than the desktop software. Therefore, the version of the server scripts is a different naming scheme from the desktop application. Visit `http://apian.com/downloads/` to see the latest versions.

When the user publishes and uploads their surveys, SurveyPro checks with the Web server to make sure the scripts loaded on the server match those the survey pages are expecting. This is one of the advantages of using the upload and download functions built into SurveyPro rather than a third party FTP program or Windows Explorer.

If you need to update the scripts, then you can install the new version in the same folders as the existing scripts. All the files are named with their version, so they will not over-write earlier scripts, and any surveys currently running will continue to do so on the version for which they were published. If instead you choose to put each script version in its own CGI folder, you'll need to give the SurveyPro user a fresh Server Crib Sheet for each revision so they can update their publish settings.

Recommended Folder Structures

A NetCollect survey publishes using three folders:

- Survey Content Folder, the front-end to which respondents will navigate in their browsers

- Survey Project Folder (and automatically generated subfolders) where the project's configuration, password, and data files reside

- ASP Library Scripts folder, typically under /cgi/ which process the surveys and in turn call the DLLs for functions

From an administrative perspective, the easiest approach is to set up folder roots for the Content and Project folders which have the appropriate permissions, and then the SurveyPro user can create sub-folders for individual surveys. In the server setup dialog these are referred to as "Nodes" but you can think of them as a root—a base location under which folders for individual surveys are added.
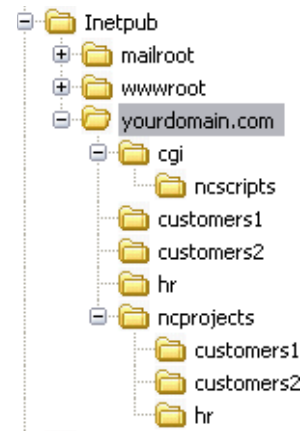
Important:

While multiple surveys *can* work from one Content or Project folder if they have different base filenames, the SurveyPro defaults assume each survey is in its own folder. Two of the files SurveyPro publishes with each survey are "index.htm" and "index.asp." The "index.htm" file is a simple meta redirect and can be discarded if your server has "index.asp" in its default pages list, or if you're directly linking to a page rather than the folder. However, "index.asp" initiates a survey session, so while it could be renamed, it cannot be discarded without risking survey errors.

If a user were not allowed to create a new sub-folder for each survey, they would be unable to use the automated uploads in SurveyPro, instead having to manually rename and then select the files to upload. They would also risk corrupting existing surveys if they were not very careful in their naming schema. For example, if they called files generically "passwords.pin" or "addressdata.csv" then they may overwrite an earlier survey's files when they uploaded. Having multiple projects in the same data folder may also cause confusion for the automated data download.

The following three examples represent different ways of configuring folders for the same surveys (two customer, one HR). Remember each survey project has its individual folders under the Content and Project roots.
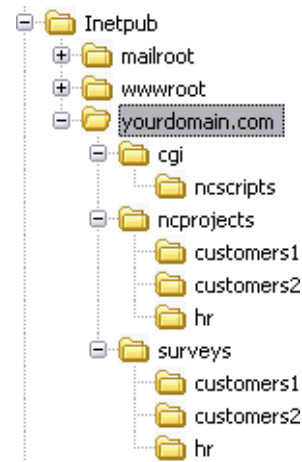
SurveyPro users are allowed to place surveys under the Web site root

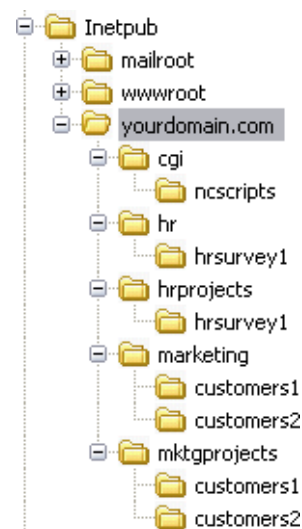All users share permissions to data folders under "ncprojects"

```
Inetpub
  mailroot
  wwwroot
  yourdomain.com
    cgi
      ncscripts
    customers1
    customers2
    hr
    ncprojects
      customers1
      customers2
      hr
```

SurveyPro users are allowed to place surveys under a survey root "surveys"

All users share permissions to data folders under "ncprojects"

```
Inetpub
  mailroot
  wwwroot
  yourdomain.com
    cgi
      ncscripts
    ncprojects
      customers1
      customers2
      hr
    surveys
      customers1
      customers2
      hr
```

SurveyPro users may place surveys under a department survey root "hr" or "marketing"

Departments have individual project data roots with different user or group permissions for "hrprojects" and "mktgprojects"

```
Inetpub
  mailroot
  wwwroot
  yourdomain.com
    cgi
      ncscripts
    hr
      hrsurvey1
    hrprojects
      hrsurvey1
    marketing
      customers1
      customers2
    mktgprojects
      customers1
      customers2
```

Folder names and security

In the above examples, we use "ncscripts" and "ncprojects" as examples. NetCollect makes no assumptions about the names other than Windows and Web legality, so you have full control over their naming and level within your server's folder architecture. While these paths are not visible to the respondents completing the surveys, for security purposes we advise using a name other than these examples, just as one will often move IIS from the default path when hardening a server.

If your server has multiple domains running surveys

The DLLs are accessed via the Windows registry, so they only have to be installed once per server. However, you'll need to use Windows Explorer to copy the ASP library scripts into each Web site's CGI folder tree. The ASP Library scripts do not contain any path information, so they do not need any modification when copied.

While you can also re-run the installer and simply specify a different folder for the ASP Library scripts, this only works if none of the domains have loaded the DLLs into memory yet. Otherwise, when you run the install, it will attempt to overwrite the DLLs and fail because IIS had locked them. This can be gotten around by unloading the sites or restarting IIS and running the install before anyone hits a survey again, but as you can see, a file copy in Windows Explorer is a bit simpler.

If your domains use multiple front-ends or a separate data server

The built-in SurveyPro upload utility accommodates a single front-end server, so users of load balanced front-ends will need to manually upload to the additional servers or use any replication utility you have in place. As long as all the front ends look to the same UNC data path and local CGI path, then no changes need to be made during the copy. Data needs to reside on a single box to properly execute the session tracking and manage individual passwords. The Apian knowledge base includes a more detailed article about load balancing configurations.

Installing the DLLs and ASP Library Scripts

`InstallNetCollectServer[version].EXE` is the only installation program you need to run on the Web server—SurveyPro itself only resides on the survey designer's desktop or LAN drive. First make sure you've received all the files on page 27 from the SurveyPro user along with their SurveyPro serial number starting with "SP4-".

1. Log in to the server using an Administrator account, either locally or via Terminal Services.

2. Double-click on **InstallNetCollectServer[version].EXE**.

3. Click **Next** past the splash screen.

4. Enter the NetCollect serial number, review the license agreement, indicate you **Agree**, then click **Next**.

This next tab is the destination for the DLLs:
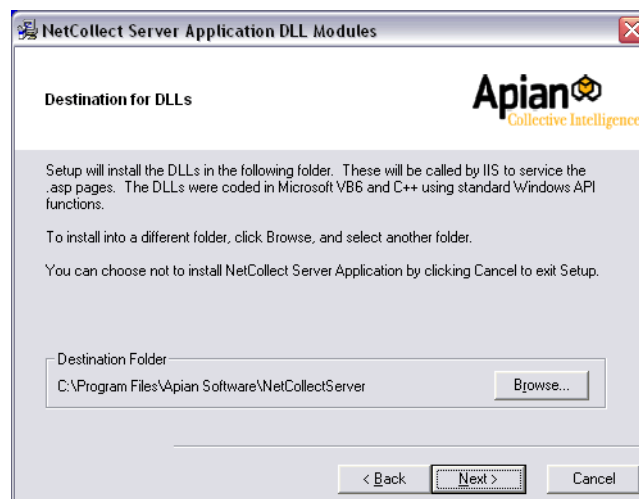
5. In most cases, the default path is fine, but if needed change the path and click **Next**.

In addition to the DLLs, the installer needs to copy some ASP scripts to a folder within your Web site. This screen starts with the default IIS path, but will likely need to be changed. If you specify a folder which does not exist, the installer will create it. If you do change the path, double check it before you click Next (occasionally an extra "cgi" may appear on the end).
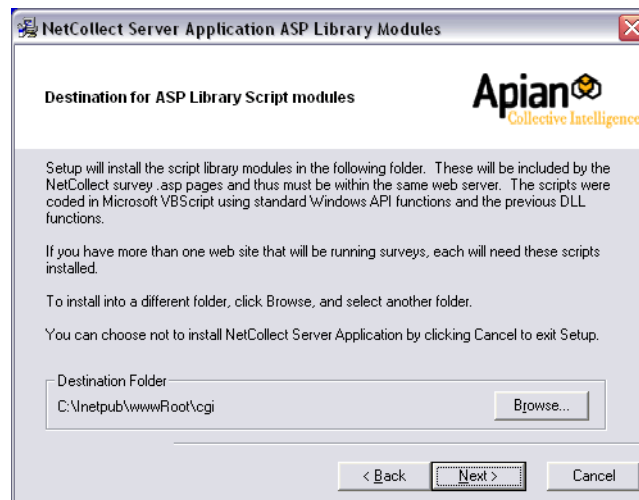
6. Set the path to suit your server and click **Next**.

Up to this point, you've only been making selections—the installation program has not yet copied any files.

7. Review the folder settings and click **Next** to begin the file copy.

8. Click **Finish** on the confirmation screen, and continue to the next section on setting permissions.

If instead of a confirmation you received an alert, it most likely means that DLLs of the same version have already been installed on this server and are currently loaded into IIS' memory. Contact Apian Support for assistance:

> http://apian.com/support/

Setting Permissions for the Survey Folders

Now that you have a basic understanding of the folders needed (on page 29) and have run the installation program, here are final setup details. For the SurveyPro users reading this, start with *Key Concept: Permissions 101* on page 37.

Permissions are by far the most common issue for setting up a server, so we recommend following these settings closely. Some of your folders, such as a CGI folder or data area, may have more generous permissions than those specified here. That's fine by NetCollect, all it cares about is its minimum needs.

The following steps assume a typical publicly accessible Web server. **If you're familiar with setting IIS and NTFS permissions, jump ahead to the tables for IIS on page 35 and NTFS on page 36.**

Checking the Default Documents List

SurveyPro assumes "index.htm" is a default document on your Web server.

While logged in locally to the server(s) or via Terminal Services:

1. **Start**, **Programs**, **Administrative Tools**, **Internet Services Manager**.

2. Expand the tree to see your site, right click and **Properties**.

3. Select the **Documents** tab.

4. If **Enable Default Document** is *not* turned on, cancel out of the dialog, find the person who configured the server, and go over the permissions with them.

5. Assuming it is enabled, make sure the list contains "index.htm." If not, click **Add** to provide the new name.

6. Optionally, add "index.asp" to the list.

If you place "index.asp" above "index.htm," the server will save a couple mips not loading the very tiny redirect page. Do **not** do this unless you're in charge of that document hierarchy or wish to be hunted down by an angry server administrator and/or Web designer.

To Set the IIS Permissions

1. Still in the **Internet Information Services** console, expand the node for the server, then for the specific Web site.

2. Right click on the folder whose permissions you are setting, and select **Properties**.

3. On the **Directory** tab, using the checkboxes and **Execute Permissions** drop-down, set each folder per the second column of the following table.

Minimum IIS Permissions Required by NetCollect

Folder	IIS Permissions
Survey Content	Read Execute Permissions: Scripts only
Survey Project data and configuration	Read Execute Permissions: None
ASP Library Scripts	Read Execute Permissions: Scripts only

Identifying the IIS Anonymous User

1. Still in the **Internet Information Services** console, right-click on the Web site root and select **Properties**.

2. Select the **Directory Security** tab.

3. Under **Anonymous access and authentication control**, click **Edit**.

4. Under **Anonymous access**, click **Edit** again.

5. Jot down the name of the account.

6. **Cancel** back to the main IIS console.

To Set the NTFS Permissions

While logged in locally to the server(s) or via Terminal Services:

1. Open **Windows Explorer** or **My Computer**.

2. Browse to the folders on your drive which correspond to the sites.

3. Right click on the highest level folder you need to adjust and select **Properties**.

4. Click the **Security** tab.

5. At the bottom of the dialog, click **Advanced**.

6. Set permissions for each folder per the following table.

Minimum NTFS Permissions Required by NetCollect

This table refers to the Advanced NTFS settings. If you've run IIS Lockdown or done similar hardening, watch for Deny permissions set on the Web Anonymous Users group. In particular, the Create/Write/Delete Deny permissions will need to be removed from the Survey Project/Data folder.

Under each folder, you'll see two columns: IIS User and SP User. The IIS user is the anonymous account under which the Web site operates (see page 35). The SP [SurveyPro] User is the person who will be uploading surveys and downloading data. If your server has more generous settings than these, NetCollect does not need you to tighten access.

| | Minimum Permissions Needed by NetCollect 4.0 | | | | | | | |
| | Survey Content | | Survey Project/Data | | ASP Library Scripts | | DLLs under Program Files | |
NTFS Permission	IIS User	SP User	IIS User	SP User	IIS User	SP User	IIS User	SP User
Traverse Folder/ Execute File		Allow	Allow	Allow			Allow	
List Folder/ Read Data	Allow	Allow	Allow	Allow	Allow		Allow	
Read Attributes	Allow	Allow	Allow	Allow	Allow		Allow	
Read Extended Attributes	Allow	Allow	Allow	Allow	Allow		Allow	
Create Files/ Write Data		Allow	Allow	Allow				
Create Folders/ Append Data		Allow	Allow	Allow				
Write Attributes		Allow	Allow	Allow				
Write Extended Attributes		Allow	Allow	Allow				
Delete Subfolders and Files		Allow		Allow				
Delete		Allow	Allow	Allow				
Read Permissions	Allow	Allow	Allow	Allow	Allow		Allow	
Change Permissions								
Take Ownership								

Key Concept: Permissions 101

This is written for the SurveyPro user, so if there are any hitches in your server setup you'll have a basic understanding of the conversation between your server administrator and Apian Tech Support.

When you use your personal computer, whether you're aware of it or not, you're interacting with Windows permissions. For example, in order to install software on your computer, you have to be logged in as a user who has Administrator rights. If you use a network printer, it has been shared to give you permission to print to it. When you access a common data drive, someone has configured the file permissions so that you can access all the folders you need to do your work, but not allow you to access sensitive information such as salaries. Web server permissions are no different than these situations you already deal with every day.

The goal for setting permissions is to allow the absolute minimum access to any user or application (such as the NetCollect scripts). When this is done properly, it's transparent, because a user only sees "permission denied" when they wander where they shouldn't. Setting these limited permissions can be complex, and sometimes administrators opt instead to allow broader access to users. While allowing broader access makes administration easier, it also leaves a system vulnerable to tampering. On your home system or within a small company network this may not be an issue, but on a Web server an open system is an invitation to hackers.

On a Windows Web server, permissions are set using three elements:

Users and Groups of Users
When you upload files to your Web server via a LAN or FTP, you're identifying yourself as an individual user. In addition to user accounts which represent individuals, programs such as the NetCollect scripts run on servers under their own user accounts. When you browse to a public Web site, you arrive as an anonymous user. The Web server is frequently configured so that when a visitor comes to a site and doesn't log in, the Web site will operate under a "Web Anonymous" account with very limited rights. Generally users are placed in Groups based on a common class of permissions, such as Marketing, Accounting or [server] Administrators. This way, when you assign file and folder permissions, you only have to do so once for a group, and then as individual users come and go, you simply add and remove them from the appropriate groups.

File and Folder Permissions
Once a user account or group is defined, folder and file level permissions can be assigned to it. A NetCollect user will typically be given permission to Read (download) and Write (upload) to the folders where they will be posting surveys and collecting data. There are many nuances to these settings, which is why our installation recommends following our instructions exactly. By default, files and folders in Windows "inherit" permissions. This means that if you have a folder called "surveydata" on your Web server, such as "http://yoursite.com/surveydata/," during the initial server setup you can give the account running the NetCollect scripts permission to Write respondent data to that folder. Then when you have an individual survey project, you create a sub-folder such as "/surveydata/hr2005/" and it will automatically inherit the same Write permissions from the folder above it.

Key Concept: Permissions 101

IIS Permissions

Internet Information Services is the Web server software that will be delivering pages and surveys to your Web site visitors. In addition to telling the Windows file/folder system that a user may need to write to a folder, you will need to turn on Write permissions for a folder within the IIS site definition. By default, all Web site folders are Read only to protect your server.

Server Paths for the SurveyPro User

When a SurveyPro user publishes their survey, they need to first define a target Web server, and then in another screen they set sub-folder and file names for that particular survey. The dialog they'll fill out for the target Web server is this:

As you sort out these fields, use the LAN or FTP "Server Crib Sheet" Word document (see page 27) to record the values and send them to your SurveyPro user.

As you provide this information to the SurveyPro user, the perspective of each field is a critical factor. There are a few general controls on this dia-

log, and then 6 blanks which represent several different perspectives of the Content and Project roots. The Content root is the path (which may be the domain root) under which individual survey folders will be posted—the pages to which respondents will browse. The Project root is the folder which has Write permissions set, under which individual survey data folders will inherit permissions. See page 29.

Remember that this dialog is the generic server information for all the SurveyPro user's surveys. This means you should not be including any folders here which are specific to just one survey project—everything should be at a level above that.

Revision of server application installed
The scripts on the server need to match the version of SurveyPro/NetCollect publishing the surveys. See *Script Versions* on page 28.

Web server
Let your user know whether they will be uploading and downloading via UNC paths over a LAN or VPN, or by FTP.

Respondent's Browser Site URL

These three fields are pieces of URLs from the perspective of a site visitor's browser.

Web Root http or https
Simply the base domain for respondents going to the surveys. Any legal URL is allowed, including IP addresses and special ports. Do not include any subfolders in this field.

Survey Contents Node Sub-URL
If you have configured the server so that the SurveyPro users will put all their surveys under a folder, then this field will contain the folder(s) below the domain root, including the survey content root folder but not including any project-specific folders below that. If users are allowed to post surveys in the domain root, then this will be blank.

Library Script Virtual Sub-URL
Again, this is the folder path below the root where the NetCollect ASP library scripts reside. Because multiple script versions can reside in one folder, it's best to leave this as shared NetCollect script location, rather than creating a folder specific to each version.

Script File References on Server

This is our second perspective. When you are logged into the server locally (or via Terminal Services), what are the paths you see in Windows Explorer? These are used by the DLLs so they need to be the drive d:\ or UNC \\servername\ paths, not IIS virtual folder paths.

Survey Contents Node Absolute Path
Start with the root of the Web site, and then add any sub-folders you specified in the Survey Contents Node Sub-URL.

Project Data Node Absolute Path
This is the full UNC path to the folder which has been set up with the required read/write permissions. This can be a path to another server if you're running a separate data box, such as when you're using load balanced front-end servers. Any UNC path is acceptable, including ones based on IPs.

File Transfer Upload/Download

Our final perspective is the SurveyPro user's, and is dependent on whether they're using LAN shares or FTP to connect. When SurveyPro publishes the survey files, it needs to create folders under both the Content and Project roots on the remote server(s), and then upload the ASP and configuration files.

Local/LAN Disk configurations
These are the UNC or mapped drive paths from the SurveyPro user's desktop to the Content and Project roots (which may be on different servers). If you have multiple SurveyPro users whose drive mappings differ, you can provide them with the UNC path on the crib sheet. At the same time, if you play musical servers but have good drive mapping standards to maintain paths, then that mapping would be the more stable reference.

FTP configurations
Once the SurveyPro user has connected to the FTP server, these are the subfolders which correspond to the Content and Project roots. The SurveyPro user can Browse to these folders once they've entered their FTP server information and Connected.

Set FTP Connect

If the Web server type is Remote FTP, the Set FTP Connect button will appear at the bottom of their Web Site Definition dialog. Clicking the button brings up these settings:

Server definitions are saved as part of an individual user's Windows profile, so saving the password in a Web Site Definition does **not** embed that value in SurveyPro data files.

SurveyPro's FTP assumes the server is using port 21. If your server is using a custom port or requires encryption, your user will need to use a third party FTP application such as WS_FTP Pro.

Testing the Server Installation

Sometimes the SurveyPro software is ordered and installed a while before the first real project. Rather than wait for that acid test (at which time the free support period may have run out), we recommend installing and testing immediately.

Using the DLL Test Script

One of the ASP library scripts installed on the Web server is called `DllTest_[version].asp`. Using a browser, load that page in the CGI folder you used during installation:
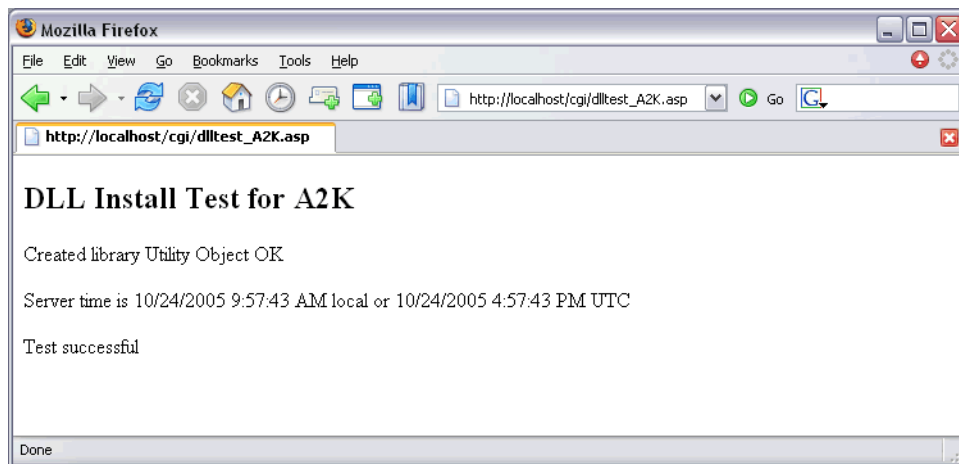
This is a simple test verifying the presence of the DLLs and that their permissions are correct. Once it comes back with a "Test successful" message, continue with the next testing step to make sure the Content and Project roots have the proper permissions.

404 error   Check your paths in the URL you typed against what you see in the IIS console for where the file resides.

403 or 500 error   Check the IIS and NTFS permissions tables on page 35.

DLL Install Test reports an error   Try restarting IIS. Note this will briefly interrupt all Web traffic, so you may want to do it after hours.

If the test still fails, contact Apian Technical Support.

Running a Test Survey

To fully test the setup, the SurveyPro user should:

- Define the Web server

- Set sub-folders and files for this survey

- Use the built-in SurveyPro upload function

- Run the Web-based Control Panel to set up the files

- Complete the survey at least once

- Download and import data using the built-in SurveyPro functions

These steps are all in a tutorial in Chapter 18, so if they run that they'll be set. Completing this full project cycle will verify the paths and permissions are correct both from the SurveyPro user's and Web server's perspective.

If you encounter problems, there's also a Troubleshooting guide. It's designed to be used during Technical Support conference calls, but you may find it useful on your own as a slightly different perspective.

That finishes configuration of a production Web server. The following section on Personal Web Server is purely for testing by the SurveyPro user.

Installing a Test Web Server on Your Local System

If you have Windows 2000 or XP Professional (rather than Home edition), you can install a copy of the Windows Web server on your local system. This is very handy if you:

- Don't have direct access to your production (live) Web servers, and have to ask someone to post your surveys each time they change

- Want to confirm that a problem you're encountering on your production server is due to an issue on that particular server and not part of your survey design

- Want to try advanced features involving database connections or multiple surveys in one data folder, which are not enabled on QuestionWeb

- Need a test system which works without an Internet connection

The instructions here just walk you through what NetCollect needs to run. If you'd like to tinker more, Microsoft publishes "Pocket Consultant" guides for IIS which address the most common questions. IIS 6 is the version in Windows XP, and IIS 5 in Windows 2000.

Important	These instructions are to set up a *testing* Web site accessed *by you* on your local system. If instead you plan to run real Web surveys from your local computer, use the installation instructions earlier in this chapter for a production server.
Mozilla Firefox Users	Firefox sometimes has a problem resolving the http://localhost/ URL used by a local Web server, generating a faux 500 server error. If you get this error, try updating Firefox or using Internet Explorer for localhost access before you conclude you do in fact have a legitimate server error.
	Firefox is fully compatible with both the preview in browser mode of SurveyPro and with surveys running on Web servers that are not localhost.

Adding the IIS Windows Component

The following steps are based on a default Windows installation which hides many administrative functions of the operating system. It's possible that your installation already has one or more of these changes in place, in which case just skip ahead to the next step.

In some cases Windows XP and Windows 2000 have slightly different settings, but this will be highlighted either at the section level or for an individual step.

Show Administrative Tools (Windows XP)

1. Right click on your Windows **Start** button and select **Properties**.

2. Select the **Start Menu** tab and click **Customize**.

XP style menu users: 3. Select the **Advanced** tab. In the list of **Start menu items**, scroll to the end where you'll find **System Administrative Tools** and select one of the two **Display** options if they're not already selected.

Classic style menu users: 3. At the top of the list of options, check **Display Administrative Tools**.

4. Click **OK** to save your settings.

Show Administrative Tools (Windows 2000)

1. **Start**, **Settings**, **Taskbar and Start Menu**.

2. Select the Advanced tab.

3. At the top of the list of options, check **Display Administrative Tools**.

4. Click **OK** to save your settings.

Installing the IIS Server

Now that Administrative tools are turned on, we can check to see if the Web server is installed.

1. **Start** menu, **Programs**, **Administrative Tools**.

2. If **Internet Information Services** is already in the list, skip ahead to the script installation on page 44. If it's not there, continue here.

3. Insert your Windows system CD, and when the splash screen comes up, select Install **Optional Windows Components**.

4. In the list of Windows **Components**, check **Internet Information Services (IIS)** and click **Next**.

5. When the installation is complete, click **Finish** and you can eject your system CD.

Installing the Scripts for a Test Server

When you installed SurveyPro 4.0 on your desktop, the installation copied a file called `InstallNetCollectServer[version].EXE` to your system. This is the program you need to run to set up your local Web server. Note: You can install the NetCollect *scripts* on multiple servers even if you have a Single User license of SurveyPro and NetCollect.

The default path where this file is placed is:

```
C:\Program Files\Apian Software\SurveyPro 40\Web Server Install\ASP\
```

1. Double-click on **InstallNetCollectServer[version].EXE**.

2. Click **Next** past the splash screen.

3. Enter your SurveyPro serial number. If you've misplaced it, launch SurveyPro and go to Help, About, and jot down the one starting with "SP4-"

4. Review the license agreement, indicate you **Agree**, then click **Next**.

This next screen is the destination for the DLLs:
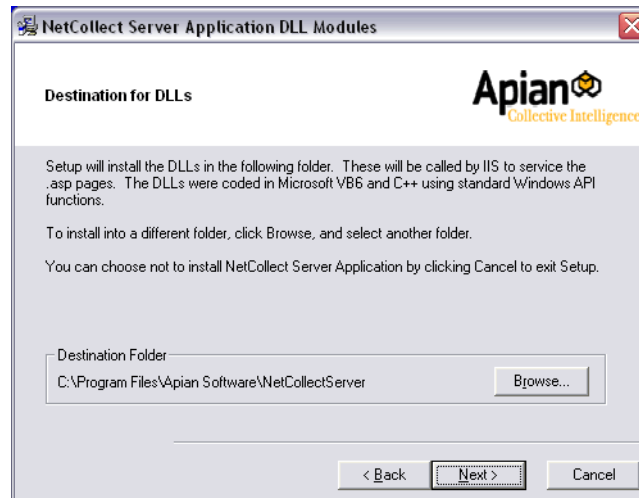
5. In almost all cases, the default path is fine, but if needed change the path and click **Next**.

In addition to the DLLs, the installer needs to copy some ASP scripts to a folder within your Web site. This screen starts with a sub-folder on your default IIS path.
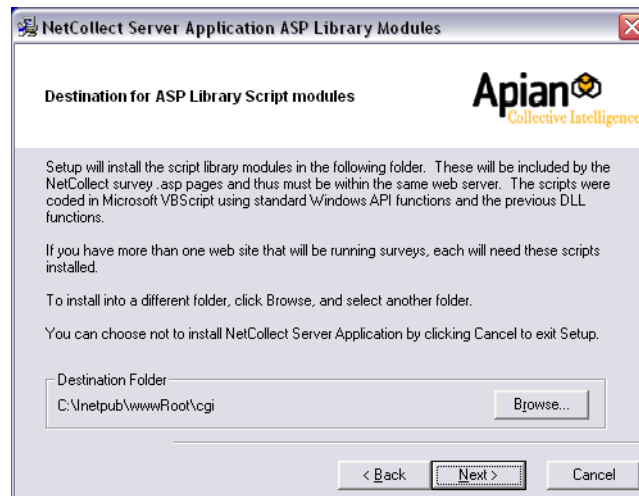
6. Click **Browse** and confirm that your system has IIS at c:\Inetpub\wwwroot\ as in the screen below:
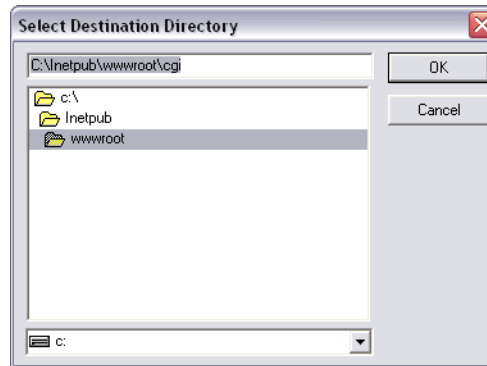
If your screen does not have at least these folders (it's OK to have subfolders), then your installation has been modified. If you weren't the one setting up IIS, you should probably Cancel the installation at this point and speak to your company Help Desk about your setup.

7. Assuming the folders were there, click **OK** to close the Browse dialog, and **Next** to continue the installation.

8. Click **Next** again to copy the files, and then **Finish** to close the installer.

Adding a Data Folder

By default, folders under IIS are read only. We want to create a "root" data folder for our surveys so we don't have to set permissions every time we publish a survey. An easy system on test servers is to name folders by their function.
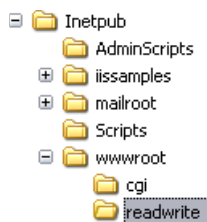
1. Launch **Windows Explorer** through Start, Programs, Accessories or My Computer.

2. Create a folder under wwwroot called "ReadWrite"

Windows 2000 users, skip ahead to *Defining Localhost Server Paths* on page 48.

Windows XP users, continue. While you have full control of your system, IIS isn't actually running as you. It's using a different user account, and we need to give that user permission to write data. Actually, we're going to take a shortcut and give all users of your desktop the ability to write in that folder, which is part of why this section is about setting up a test system, not a production server. If you want to set the minimum permissions, follow the procedures for a regular server setup.

1. In Windows Explorer, **Tools** menu, **Folder Options**.

2. On the **View** tab, scroll to the very end of the list. Check **Use simple file sharing** if it's not on already.

3. Click **OK** to close the Options dialog.

4. Right click on the ReadWrite folder you just created and select **Properties**.

5. Select the **Web Sharing** tab.

6. Select **Share this folder**.
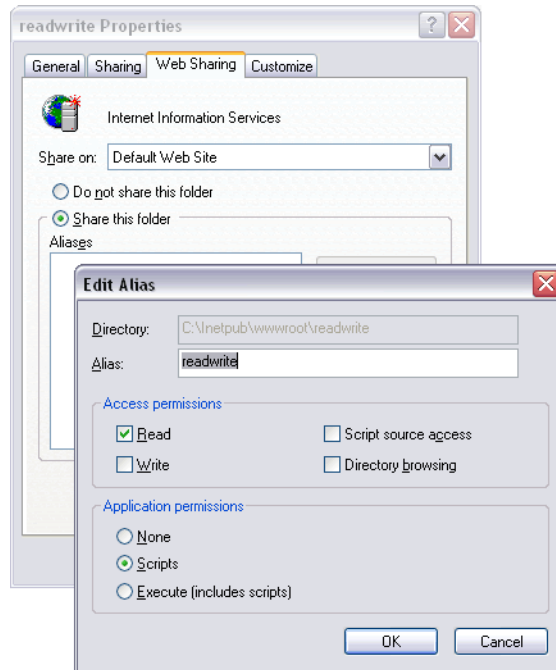
7. In the dialog that pops up, select **Write**. Click **OK** on the security warning.

8. Click **OK** to save the new permissions. If you get a message about the share name being in use, change the Alias slightly such as making it "ncreadwrite."

9. Click **OK** again to close the Properties dialog.

And now your desktop or laptop is a test Web server!

Defining Localhost Server Paths

When you're ready to publish a survey to your local system, you'll need to define a Web server within SurveyPro. These are the settings you'll need if you used the defaults in these instructions:

Be sure to click the Test URLs button to make sure everything is OK.

And now you're ready to go! For a walk-through of the Publish process, see the tutorial on page 295.

Server Load for High Volume Surveys

What constitutes high volume? There are two ways to generate high load on a survey. The first is to simply have a lot of visitors all the time, such as on a large e-commerce site or a large company's intranet. The second method is to generate artificial spikes in visitors. The most common approach for surveys is sending e-mail invitations, but any event such as a television broadcast or trade show can generate surges of visitors. Generally e-mail drops produce an immediate response which sharply falls off in the next 24-48 hours. Sending e-mails in batches or even simply sending them in the middle of the night (rather than at 9:30am when all your employees are at their desks) helps manage the inbound traffic.

In contemplating the load on your surveys, you need to think in terms of how many respondents you need to handle per minute. Shorter durations such as two respondents in 1/100th of a second are handled by the scripts. Longer durations, such as an hour, are a useful reference point but don't represent how NetCollect handles arriving respondents.

This section will help you understand what NetCollect is doing behind the scenes, so you can better assess whether your surveys are high load, and how to check on the performance of your servers.

CPU Management

The NetCollect system uses flat files instead of databases, both to minimize server system requirements by making SQL optional, and because some C++ tricks let us read and write very quickly to them. However, IIS tends to be fairly simple minded when two script instances attempt to access the same file at once. Normally when this file contention happens, IIS will hang on to the CPU for all the scripts trying this and jam up the system. Instead of letting this happen, NetCollect forces IIS to let loose of the CPU and then retries in a few milliseconds, keeping traffic moving. These retry requests are logged.

There are also a couple system intensive maintenance routines, such as merging the abandoned survey sessions into a data file (high volume surveys may generate over ten thousand). When NetCollect is running these administrative functions, it restricts the amount of CPU used to ~25% so you don't have to worry about it impacting survey respondents or other processes.

Handling Inbound Respondents

One of the worst things for a server administrator to hear is "Oops, we sent all 100,000 e-mails at once" because once they're out there, it's impossible to keep people from trying to hit the server. This is why the first thing NetCollect's scripts do is check how many people are taking a particular survey, and if necessary, lock out new entrants. Because this function is most critical in high load situations, it was designed to access a minimal number of files and CPU cycles.

Each time a respondent clicks Next on a survey page, the scripts have to handle the request. Some surveys will have 2 pages, some have 30 or more. By default, NetCollect surveys publish with a capacity limit of 500 pages per minute. So if a survey is 10 pages long, NetCollect will allow 50 respondents to start the survey in a rolling 60 second period. The 51st person trying to start the survey in a minute will get a "try back later" message. Respondents resuming a paused survey are always allowed in.

Both the overall limit of 500 pages per minute and the number of pages per respondent may be adjusted in each survey's Control Panel, which is NetCollect's Web-based admin utility. Direct your SurveyPro users to the Advanced Options, Server Load Protection page (see page 329).

Depending on your server capacity, you may want to establish a higher or lower pages/minute limit that you tell your SurveyPro users to use. Or you may want to adjust the limit up or down for individual surveys which are particularly straightforward or system intensive (SQL connections, lots of field checks that can produce page reloads, etc.).

While NetCollect knows the number of HTML pages it publishes for each questionnaire and uses that as the default for surveys, in some cases that value isn't very representative of actual server load. If a survey is very skip/branch intensive, then typical respondents may only complete 10 pages of a 50 page survey. In those cases, the SurveyPro user can adjust the Typical Survey Pages setting to a lower value without jeopardizing performance.

NetCollect File Reads and Writes

NetCollect's scripts use the best practices possible for fast file opens, reads, and writes. If you have concerns about whether a particularly large file is slowing performance, the best way to discover the impact is to run an experiment. Go through the survey a few times with the full copy of the pipe or other file. Then try completing it another few times with an abbreviated source file. Note differences in the execution times recorded in the

log, and if necessary, adjust the throttle limit to reflect the heavier hit on the pages which do the piping (not all survey pages would be impacted). In many cases, you may be surprised at the execution times—for example the PIN password files are structured to allow binary searches, letting a million values be used almost as efficiently as a thousand.

With the occasional exception of piping pages, the first and last pages of a survey will be the most system intensive because initiating and closing a respondent session involves more files and modules than middle survey pages.

Adding Capacity

In some cases, the SurveyPro user may say 500 pages per minute just isn't enough. The best way to handle this is to use a higher performance box, either by upgrading the entire system or by adding processors.

You can also look at load-balanced front-end servers, but keep in mind that all respondents to a particular survey need to be writing to the same data folder. This also only solves the problem of high CPU usage on the IIS server, so if you're seeing lots of file retries being recorded, this will only exacerbate the problem.

If you are seeing lots of file retries, you can look into faster data writes, either by going for a higher performance hard drive or by upgrading any LAN connections between the IIS server and where data is being written.

Also to address frequent file retries, you can "clone" surveys. This is similar to server mirroring, where a complete copy is made of the survey project, including a copy of the data folders. In this case, you create a switcher page that randomly directs respondents to one of the clones, or you can parse your e-mail list to send respondents to specific clones. Note: Switcher pages do not work with one-time individual passwords as the respondents would be able to access each clone one time. Leave/resume would also be limited to bookmarks with a switcher page, rather than re-entry with a code.

Checking the Logs and Doing the Math

The IIS logs are of limited use in evaluating survey performance. Instead, check the NetCollect logs for particular surveys. The main project log will record execution times for each script request, including file access retries and any errors. The throttle log will reveal the time and number of respondents at its peak (handy for convincing users that the 500 pages/minute limit is more then enough).

When you review the logs, you'll see page submits in milliseconds. With a little math, you can translate that to how much server capacity each page submit is taking.

1. Take at least 4 passes through a survey at the same times respondents will (not midnight). Find the average time it's taking to submit pages for the survey.

2. Say it's averaging 50 milliseconds to submit a page. There are 60,000 milliseconds in a minute. This translates to a theoretical capacity of 1,200 pages/minute for the survey. Multiply that 1,200 by the number of load-balanced front-end servers if applicable.

3. Now consider how much of your total processor you want to allot to one application. If it's 25%, then the maximum you could set this survey to is 300 pages/minute. Generally you'll want to keep it under 50%.

The allowed processor is generally a safety cut-off, not a fixed slice of the pie. For example, on Apian's servers, if you totalled "allowed maximum" processor for all the surveys live at any time, you'd be well over 100%. However, very few of those surveys get near their capacity limit. Of the ones that do have high volumes, very few are doing so on a sustained basis. Instead they're being driven by e-mail invitations which are on staggered schedules—and often staggered time zones.

See *Reading the Log Files* on page 362 for how to decipher the entries of both the main Project log and the Throttle log.

REFERENCE

Publish Settings

Now that your survey is complete—or at least drafted—you'll need to publish the pages and upload them to a Web server.

> **Note:**
> Sections that apply only to one server type will be titled with "Your Server" or "QuestionWeb". All other sections apply to both setups.

Chapter Contents:

Understanding the Publish Process

Publishing is simply the process of creating survey pages which will work on your server and then getting them to that server. The first time you go through the process can take a little time—especially when it's part of your server script installation—but after that it takes just a minute to publish a new or revised survey.

If you're not certain what type of server you want to use, see *Server Options* on page 4. The QuestionWeb one day trial accounts are also a great option if you're just playing around with a survey (see page 315).

How Surveys Run on a Web Server

Each survey you run expects to have two folders all to itself on your Web server.

The "Content" folder is the one where your survey pages reside, and is the place respondents will browse to on your site. Here, the Content folder is "JunePoll":

```
http://yoursite.com/surveys/JunePoll/
```

The "Project" folder is where your data will accumulate, as well as where files like your passwords and logs reside. For security, Project folders are usually in a different location from the Content folders, such as:

```
http://yoursite.com/surveydata/JunePoll/
```

The final folder name can be the same for a survey's Content and Project as long as they're on different paths. You can also use friendly names for Content, paired with a code such as client IDs for the Project folders.

Above the final Content and Project folders are locations called the Content Node or Root, and Project Node or Root. Those paths are set during the initial script installation with your server administrator. See *Recommended Folder Structures* on page 29 for some common approaches.

Once those roots are sorted out and saved as part of a Web Site Definition in SurveyPro, all you do for an individual project is say what you want the final two Content and Project folders to be named. Developing that definition the first time requires the assistance of your server administrator, and sometimes requires a few tries to get everything just right. The server setup chapter on page 26 is what your server administrator will need to do the initial setup, and that chapter is available as a separate PDF docu-

ment either installed with SurveyPro or from
`http://apian.com/downloads/`.

QuestionWeb users skip the "sorting out" part of this and just use one of the folders associated with their account.

You can re-use folders as surveys conclude, but having two active surveys at the same location at the same time makes life much more complicated (see page 288).

Publishing the First Time on Your Server

The good news is once you successfully publish a survey, every one after that is very easy. Figuring it out the first time can involve a bit of a learning curve though.

1. Start your setup as soon as you get NetCollect, before you need to have your first survey go live and while you still have support coverage.

2. Work with your server administrator to get the scripts installed and decide where you want your Content and Project Roots located (see page 276). *Server Installation* on page 26 is what your server administrator will need to do the initial setup, and that chapter is available as a separate PDF document either installed with SurveyPro or from `http://apian.com/downloads/`.

3. Get a draft of the Server Crib Sheet (see page 38) from your server administrator with all the paths SurveyPro needs to Publish.

4. As part of testing your server setup, use the tutorial on page 295 to create your first Web Site definition and Publish a survey. For the first time, using one of the NetCollect sample files is a good way to test the setup.

5. Revise the Server Crib Sheet and Web Site definition as needed until a survey successfully goes all the way through downloading and importing data.

6. Take a screen capture (PrtScrn) of the final working Web Site definition, paste it into Word, and stash it somewhere safe!

After this first time, all you'll do is pick that saved Web Site definition within SurveyPro, set your Content and Project paths, and upload—just a minute or two.

Resources while sorting all this out the first time:

Server Installation **on page 26**

The best place for any problems related to folders/paths, permissions errors, etc. If you start having problems, we highly recommend your server administrator read from the very first page of the server installa-

tion chapter through *Testing the Server Installation* on page 41. Often the information your server administrator needs is in there, just under a section heading they thought didn't apply.

***Web Site Definitions for Your Server* on page 280**	Information about copying and modifying Web Site definitions, as well as details about FTP and LAN uploads and downloads.
***Setting Paths for a Survey* on page 285**	Details about the fields which are specific to each survey, the final Content and Project folders.
Technical Support	If you get really stuck, Apian Technical Support has a troubleshooting walk-through process. This requires both you, the SurveyPro user, and your server administrator be on a conference call with support. During the call, you'll need to be able to log into the Web server to check settings and make changes, as well as having a system with SurveyPro available for Publishing surveys. These calls can take an hour, and must be scheduled in advance by contacting `support@apian.com`.

Publishing the First Time on QuestionWeb

With QuestionWeb you'll have an account which manages one or more "folders". You can change surveys within a folder as often as you like, but each folder can contain only one active survey at a time. The folders under your account can have a mix of expiration dates and special services such as encrypted survey submissions and high capacity.

1. Sign up for a QuestionWeb account at `http://www.QuestionWeb.com` at least one business day before you need it for a survey.

2. Use the tutorial on page 308 to go through the Publish process the first time, including saving your account information and doing a test download and import.

QuestionWeb account information comes from sales@apian.com. To avoid delays, add that address to your Contacts or approved senders list. On rare occasion, there may be a problem connecting to the QuestionWeb servers for uploads. If your IT department tends to have very restrictive settings on the firewall and applications, we recommend setting up your QuestionWeb account a week before you need it.

Resources while sorting all this out the first time:

***Web Site Definitions for QuestionWeb* on page 284**	Information about finding your FTP password and working with multiple folders.
***Setting Paths for a Survey* on page 285**	Details about the fields which are specific to each survey, the final Content and Project folders.

Technical Support   QuestionWeb accounts include support on the Publish process, even if you don't have a support contract for SurveyPro itself. Contact support@apian.com.

Publish Steps in Detail

You may want to refresh your memory of the big picture view on page 7. When you publish your NetCollect surveys, the software goes through a few steps:

1. Checking the survey is ready for publish (no missing login definitions or piping files)

2. Checking your server definition and survey paths are complete

3. Creating a local copy of your survey's ASP pages, configuration and other files as they will appear on the server

4. Generating a Publish log

5. Prompting you to upload the pages

6. Uploading those survey files to the server

7. Prompting you to launch the Web-based Control Panel

8. Opening a browser and loading the Control Panel

If you're going to be modifying the survey pages in an HTML editor (see page 355), then you can halt the process by clicking **Later** at step 5. If it's just a quick change you're making yourself, you can leave SurveyPro at the prompt, edit the pages, and then return to SurveyPro. If you're going to be passing the files to a designer for the changes, you can cancel the process at that point and use the advanced upload later (see page 290).

Accessing SP4 Files from Multiple Systems

If you share SP4 files with co-workers or access them yourself from both a laptop and desktop, this information will make your life easier.

Sharing Web site definitions

While the details of a Web Site are saved as part of your user account on just one computer, what SurveyPro stores in the SP4 file is the **name** of the definition. If all the users in your company use identical names to refer to the same server settings, then you'll never see warning notices about server definitions being missing.

Saving SP4 files to common shares

Often one user will Publish the survey, but another person will be downloading data. When SurveyPro Publishes, you give it a location on your local system or LAN share where it will be creating copies of your Web pages (see page 279). Later, when you use Get Latest Data (see page 335) it looks for that same set of folders to download the files.

When you e-mail SP4 files around and everyone is saving them to a different location, Get Latest Data can't find its local folders and will give an error. However, if the SP4 file and those Publish sub-folders are stored on a LAN data share that everyone accesses with the same drive letter, everything will work beautifully.

Likewise on a desktop/laptop setup, be sure you're using the same drive and path locations for your files, and synchronize not just the SP4 files but also the sub-folders created during Publish.

Web Site Definitions for Your Server

If you don't have your Server Crib Sheet (see page 38), now is the time to track it down from your server administrator.

To define a Web Site:

1. Web Survey Setup dialog

2. Edit Server Configuration

3. Define New Site button

The fields in the Web Site Definition dialog are covered on page 38 as they're tightly intertwined with the folders your server administrator creates. Therefore, this section is less about determining the specific paths you'll type than about working with Web Site definitions in general.

Checking Script Versions on Your Server

When publishing, you have to have a script match between your version of SurveyPro and the scripts on the server. Any "old" script versions must be left on your server until you're absolutely certain there are no surveys referencing them. Likewise you should keep Web Site definitions on your system as long as you're pulling data for projects published under them. Updated server scripts can be installed in parallel on a server and are a quick update if your administrator followed our installation recommendations (see page 28).

To check for a script version without looking on the server itself:

1. Web Survey Setup dialog 📇

2. Edit Server Configuration

3. Define New Site button, or Edit All Sites button to check an existing definition

4. Fill in the fields for a new site or select your site from the list

5. Click Test URLs

Copying, Editing and Deleting Your Server Definitions

To edit Web Site definitions:

1. Web Survey Setup dialog 📇

2. Edit Server Configuration

3. Edit All Sites button

4. Select a Site from the list and Modify 🔲 , Delete 🔲 or Duplicate 📷

First, remember that the Web Sites are named objects that multiple surveys will reference. Unlike your Rescales and Text Styles which are saved within one SP4 file and only used by its documents, Web Sites are saved in your computer's registry and used by multiple SP4 files. While it is possible to re-create a Web Site definition after it's been removed, it's more of a hassle than being conservative with your edits and deletions.

There are a few common situations for editing and copying sites:

Debugging your initial definition
It's not uncommon for one to spend a couple rounds fixing typos or adjusting a server configuration when doing the initial installation. In this case, there are no real surveys using the Web Site definitions yet, so modify 🔲 freely.

Updating script versions
If you update your SurveyPro, it may now want a newer version of the scripts for new projects. At the same time, live surveys will be referencing older script generations. In this case, duplicate 📷 your current definition and then change the Revision in the **copy** to match the notice "This NetCollect is." Use the Test URLs button to confirm your server administrator properly updated the server side.

Creating a similar site with new Project or Content roots
In most cases, a server will have one Project and one Content root which all SurveyPro users to post their surveys. However, some firms may create multiple roots for different departments, such as marketing and human resources. In this case, you may end up duplicating 📷 one

department's settings and updating a few fields for the additional department.

Other than these situations, you'll rarely need to modify your definitions. If you find yourself making changes regularly, there may be a way to change your base definition so the frequently changed portions are in your survey paths instead.

Renaming a server definition

Server definitions are saved centrally on your computer and referenced by name from a SP4 file. If you rename the settings while in one survey, other SP4 files sharing that definition will not be able to find their server any more and will generate errors when you try to upload or download. If you attempt to rename a server definition, you'll see a warning dialog with the options to cancel, create a copy of the server definition with the new name, or rename the original version.

Housecleaning

When you no longer need a server definition for Publishing **or data downloads**, you can delete it from your system.

Servers Accessed via LAN Shares (Your Server)

When you're working with intranet servers, local test systems, or production servers accessed through a VPN, the drives of the Web servers may be accessible through Windows Explorer just like your C:\ drive or a shared network data drive. There are two types of paths:

UNC paths

A universal (or uniform) naming convention path which consists of:

    \\servername\sharename
    \\serverIPaddress\sharename

A share name may be something like Marketing or Clients or simply C$ for that server's C drive. Whenever you see a share with a $ at the end, that means it's a hidden share—you can connect to it if you know the exact name, but it won't appear when you browse the system.

Drive letter mappings

All a drive letter mapping does is make an entry in your computer that says:

    \\servername\sharename\subfolders\ = W:\

In some organizations, there are standardized drive mappings so you can tell anyone in the company to use the "W drive" to access a Web server, or "S drive" to get to shared data files. Not all companies have these standards, though, so while the UNC paths appear messier, using them can be

a lot simpler than figuring out that your W drive is different from someone else's.

Whenever a Windows system tries to connect to another computer, the first thing it does is pass along your network username and password. If it finds a match on the other system, it will let you access the share with no notices. However, if it doesn't find a match to your username, then Windows will pop up a dialog box for you to enter other credentials.

If your Web server shares require that separate authentication box, you need to establish the connection and authenticate yourself before uploading from SurveyPro (going to Windows Start, Run and putting the share in works). Once a connection is established, SurveyPro can upload and download with no problems.

Servers Accessed via FTP (Your Server)

SurveyPro's FTP function works for the majority of server configurations, but it does make a couple assumptions:

- You're connecting via port 21 (the FTP default)

- Both the Content and Project roots are available as sub-folders after you connect via FTP

If either of those is not true for you, or if you require an encrypted FTP connection, you'll need to use a third-party FTP utility for uploads. (In some cases a simple port change can be specified with ftp://your-site.com:portnumber.)

If you are using a separate FTP application, you'll need to define a Web Site with false upload connection information (SurveyPro won't let you save a definition with missing fields), and only go partially through the steps on page 279. If you cancel at step 5, then SurveyPro will have generated the survey pages and configuration files on your local drive, but not yet attempted to upload them. At this point you can open up your FTP program and do the upload.

Similarly, you will not be able to use SurveyPro's integrated data download. Use the Control Panel's data page (see page 328) to archive the work in progress WIP file, and then download either from the Control Panel or using your FTP application.

Next section for Your Server: *Setting Paths for a Survey* on page 285.

Web Site Definitions for QuestionWeb

QuestionWeb takes care of script versions and server paths for you, so all you need is your account information to Publish.

To define a Web Site:

1. Web Survey Setup dialog

2. Edit Server Configuration

3. Define New Site button

In addition to the regular paid QuestionWeb accounts, Apian now offers one day trial accounts. To sign up for a regular account, go to www.QuestionWeb.com and click the Order Now link—accounts are activated within 1 business day. To request a demo folder, select that server type within SurveyPro and click the Get Demo Folder button.

Both types of accounts are covered in the QuestionWeb publish tutorial on page 308.

Understanding QuestionWeb Uploads

QuestionWeb's folder upload and file check-in process is slightly different from on your own server. While an upload to your own server places files in the location respondents go to, uploads to QuestionWeb go to a temporary holding location.

Once you upload your survey to a folder and log in to the Control Panel, you need to tell QuestionWeb to check for your new files. For the folder you used, click the **Set Up New Project** button, then click **Set Up Project** on the next screen. This tells the server to go check the files you uploaded, insert the QuestionWeb server paths, and copy them to their final location.

Finding Your FTP password for QuestionWeb

If you have a one-day demo account, all the information you need is in the automated e-mail you received on sign-up.

If you have a regular QuestionWeb account, log in to your account Control Panel at:

```
https://questionweb.com/controlpanel/
```

On the first page, QuestionWeb displays a list of the folders in your account. In the pale blue banner across the top of the page you'll see your FTP password, which is different from your Control Panel password.

QuestionWeb Accounts with Multiple Folders

When publishing to QuestionWeb, SurveyPro will let you browse to a folder within your account and will warn you if you're uploading to a folder which already has content. What it won't tell you from within SurveyPro is *which* survey is in that folder. Because of this, it's helpful to be logged into the QuestionWeb Control Panel during Publish so you can confirm you've picked the right destination.

Setting Paths for a Survey

Web Sites definitions let you enter all the information which is generic to your Web server, so after that you only need to enter the subfolders and file names specific to one survey.

To enter fields for a survey:

1. Web Survey Setup dialog

2. Edit Server Configuration

3. Select a Site from the list and click Use Site

The fields in the Survey Project dialog depend on whether you're using your own server or QuestionWeb. Both versions are documented together here, so skip any field names you don't see on your screen.
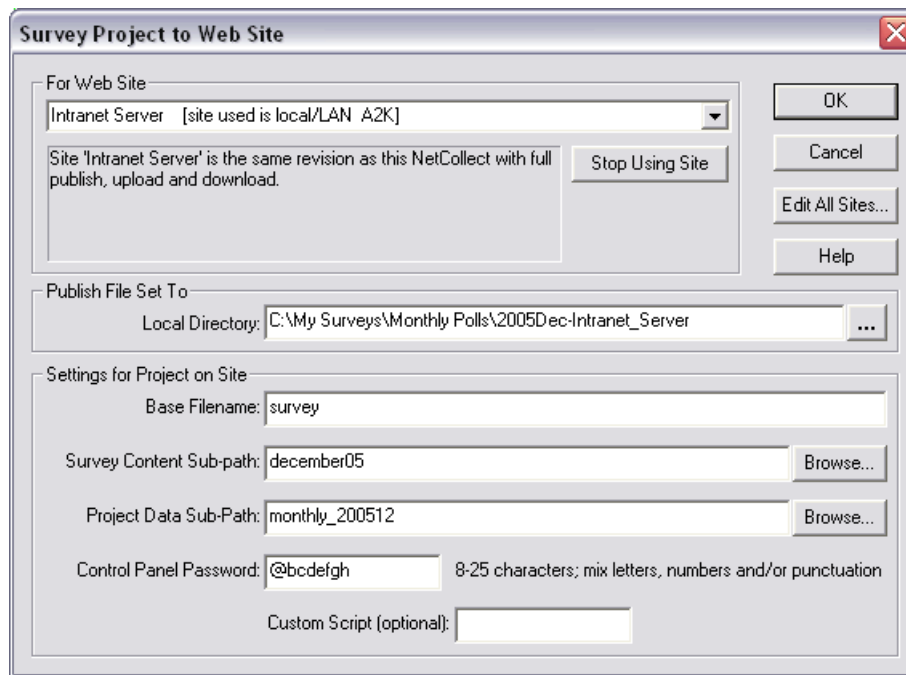
Edit All Sites	This button brings up the Web Site definition dialog, allowing you to review the settings for a site, create a new site, or edit an existing site.
Local Directory	The Local Directory is where NetCollect will create your survey pages before uploading them to the server. By default, it creates a subfolder where your SP4 file is saved, and names that folder with the SP4 file name plus the server definition name. Nobody but you will ever see that path, so generally the default is fine. You do want to have a folder for each survey though, so if you have multiple Web questionnaires in one SP4 file you may need to modify the path.
Base Filename	Base Filename sets the name of the .ASP pages, and defaults to the SP4 file name. While you generally won't include this in the link you send to respondents (unless you're using an embedded launch), it will be visible in their browser's address as soon as they start the survey. Good names are short and either consistent with the survey or generic.
QuestionWeb Folder	Either type or Browse to select the 5 digit QuestionWeb folder which you're using for the survey. When you Publish, SurveyPro will warn you if the folder has a survey in it, but won't give any details, so it can help to log into the QuestionWeb Control Panel to confirm you've got the right folder.

Survey Content Sub-path (Your Server)

This builds on top of paths in the Web Site definition, and is part of the address you'll ask respondents to go to. The Survey Content folder should be unique to this project. Let's say your Web Site definition included these entries:

Web Root	http://www.yoursite.com
Survey Contents Node	surveys/

If you were conducting a survey on widgets, you could use as your Survey Content Sub-path "widget," which would combine with your Web Root and Survey Contents Node to make this URL for respondents:

http://www.yoursite.com/surveys/widget/

Some Web site definitions don't have a specific Survey Contents Node, in which case your Survey Content Sub-Path might be "widgetsurvey" instead to distinguish it from other widget information on the site. As with the base filename, shorter folder names are best. While spaces are allowed, they'll often appear in a browser as "%20" so try hyphens or underscores in their place.

Project Data Sub-path (Your Server)

Like the Survey Content Sub-path, this should be a unique folder for this survey. Unlike the Content folder, this location is hidden from respondents though it is visible to anyone else with file access to your server. In most cases, your survey data will be going to a folder path specifically for Net-Collect projects—the Project Data Node in the Web Site definition. If you're the only one posting surveys, you can use any naming scheme which makes sense to you. However, if there are multiple NetCollect users posting many surveys, you may want to work out a system where the path includes your department, name, date, or other information which would short-cut conversations about "Who the heck posted this?" Because the files within the Content and Project folders refer to each other, you don't have to worry about embedding this sort of information in the path visible to respondents.

Control Panel Password (Your Server)

Enter at least 8 characters using at least one number or special character. This is used to access the Control Panel published with your survey in the Content folder as "basefilename-cp.asp." If you forget your password, it's always here in the SP4 file for your reference.

Custom Script (Your Server)

This is a very rarely used field—most users will leave it blank. Part of the NetCollect script engine is a file called "NC_Custom." When answers are submitted by respondents, the data runs through this script along with the normal processors for skips, etc. In the version of the script Apian ships with NetCollect, the data just does a U-turn through the NC_Custom

script, with no actions taken. On rare occasion, an organization will require a special function which cannot be handled with custom Java-Script or ASP code in the survey pages, so they will add server-side code to this module. Unless your server administrator has given you an entry for this field, ignore it.

Sharing Survey Folders with Other Files on Your Server

We strongly recommend against this practice, as SurveyPro's automatic publish and upload systems assume each survey resides in its own folder (directory) on the server. If you want to place multiple surveys in a Web Site folder or place a survey in a folder with general Web pages, you'll need to:

- Use the Advanced Upload in SurveyPro or a separate file transfer mechanism to copy the published files up to your Web server

- Keep track of your base filenames and image names to make sure they're distinct among your different surveys

- Replace the index.htm redirect page with other content

- Rename the index.asp survey initiation page for each questionnaire, and link directly to that renamed page to initiate the survey (not to the basefilename.asp page)

QuestionWeb does not allow multiple surveys at one time in a folder.

See also *Files in the Content Folder* on page 348.

Between Publish and Upload

Publishing your survey consists of creating all the survey pages, generating a configuration to drive your skips and answer tests, and copying relevant files such as graphics and PINs into one central spot. Once these files are created on your local system, you'll see a confirmation dialog:
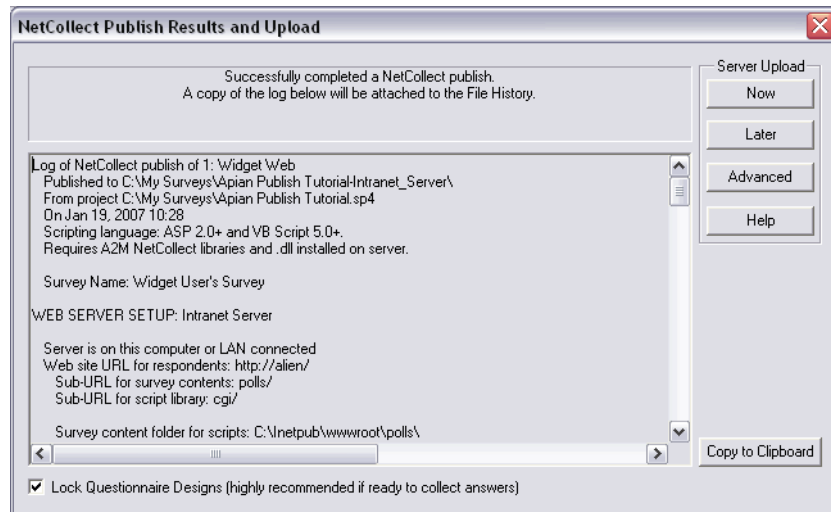
At this point, no files have been placed on your server. In most cases, you'll upload immediately, but on occasion you may need to alter some files first.

Upload Now

Copies the files in your local publish directories up to your server. Net-Collect will not notice if you leave this dialog open, make a quick adjustment to an HTML page in an editor such as Dreamweaver or FrontPage, and then click the Now button to upload the modified page.

Upload Later

Defers the upload to another time, allowing you to pass the files to a graphic designer. Even if you know you'll be editing the layouts, you may want to upload your surveys Now to ensure basic functionality, and then copy the modified survey pages up later. See *Advanced Upload* on page 290.

Upload Advanced

Launches the Advanced Upload dialog for selective file placement. See page 290.

Copy to Clipboard

Copies the Publish Log to the clipboard for printing. A copy of this log is also created in the local publish folders for your reference.

Lock Questionnaire Designs

If the questionnaire designs are currently unlocked, this option will appear at the bottom of the screen. Please leave it marked—see *The Best Way to Mangle Survey Data* on page 14 for why.

Advanced Upload

Most of the time, SurveyPro's simple "Upload Now" is what you'll use right after Publish. Sometimes, though, you'll need a little more control for uploading:

• Survey pages after your designer gives them a tweak

• An updated logo file (make sure it's the same pixel dimensions)

• A password file to replace your test version

• An expanded pipe-in file

The Advanced Upload dialog has three tabs. The first is a summary page which shows the most recent Publish and lets you launch the Control Panel, the second is used to access the survey's Content folder, and the third is used to access the Project folder. Both the Content and Project tabs have two views, with the left list showing your local system's files, and the right showing your Web server.

In these views, you cannot browse to other folders on your system or change your mind about where surveys will reside on the server—if you need to adjust those paths, you'll have to re-publish.

Important

If you revise your survey and re-publish, you need to re-upload all the survey pages and the CFG file together. NetCollect checks that the publish date and time matches within all these files (not the file modified time stamp).

QuestionWeb users

The Server view of Advanced Uploads is the upload area, not the final file locations. Any time you upload files you'll need to click Set Up New Project in the Control Panel to check in the revised files. Every time you use Set Up New Project, it copies **all** the files from your FTP folder, not just updated ones, and also re-sets all your data files and logs. Because of this, the function is not available while a survey is in Live mode.

To access Advanced Upload

1. Web Survey Setup dialog 🔲

2. **Advanced** Upload button

You can also reach the dialog right after publishing your files by clicking the Advanced button at the screen with the publish log.

Server Selection and Publish Log

The first tab shows a summary of the most recent Publish (the only one that ever matters). In addition to this information, there are a few controls you can use.
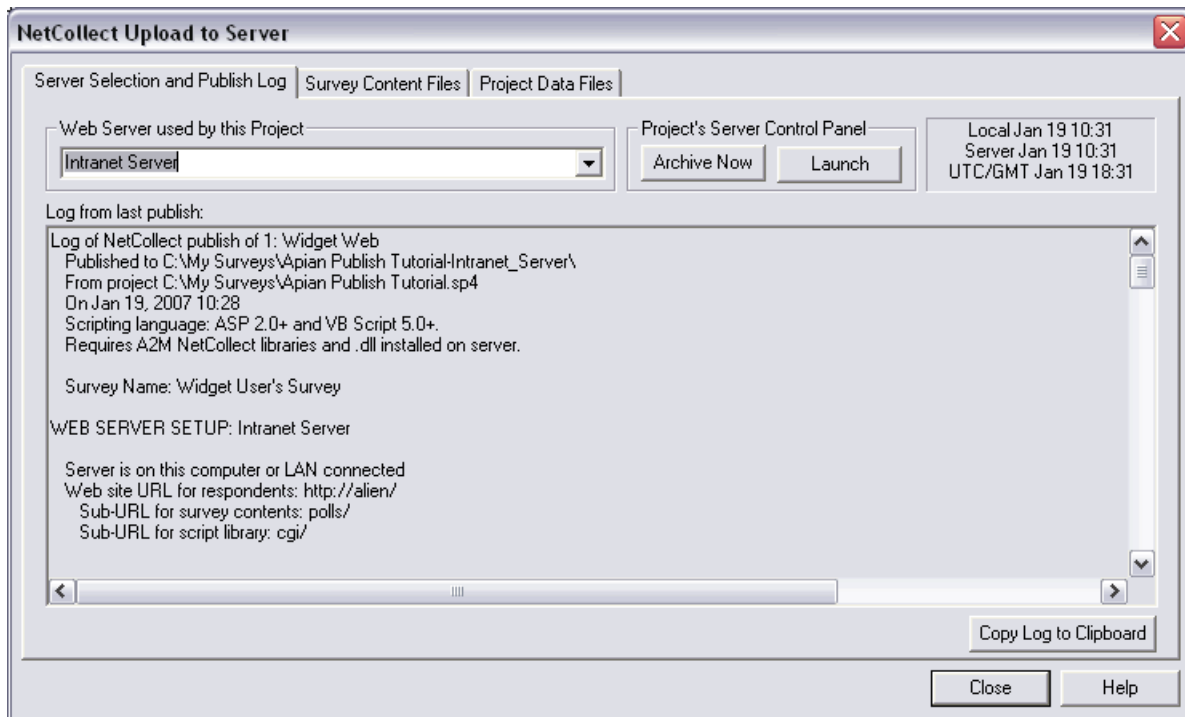
Local and Server times	In the upper-right corner are times for your local system and the Web server, which are often set to different time zones. Keep these in mind as you're trying to determine which files are more "recent" between the two locations.
Archive Now	This sends a command to the Control Panel to Archive the current work in progress data file. You'll rarely use it when doing Uploads—it's mostly there because this screen is also used in the Advanced Download dialog.
Launch	Opens a browser window with the survey's Control Panel.
Lock Questionnaire Designs	If the questionnaire designs are currently unlocked, this option will appear at the bottom of the screen. Please leave it marked—see *The Best Way to Mangle Survey Data* on page 14 for why.

Survey Content and Project Data Files on Your Server

When you select the Survey Content or Project Data tabs, SurveyPro displays your local system's files on the left side and your Web server's on the right side.

Understanding the "Extra" Files

On both the Content and Project sides you'll probably see far more files than you expected. Every file has a purpose, so don't skip uploading one or two that you *think* is superfluous. See also *Files on the Server* on page 348 and *Closing and Archiving Surveys* on page 344.

On the Content side   In addition to the survey pages themselves you'll see index pages which are used to direct respondents to the survey and initiate sessions. Graphic files starting with "nc" are used either for survey buttons, progress bars, or within the Control Panel. Certain ASP pages are created to manage the survey via the Control Panel and SurveyPro. Within the Content folder, your local system and the Web server should always match.

On the Project side   In this case, your local system will only show a handful of files, but the Web Site side will show a proliferation of files. Some of these are data, others are logs, and others are control files for managing respondent traffic. Again, every file exists for a reason, and while some will re-generate if removed, you really don't want to "tidy" an active survey—ever.
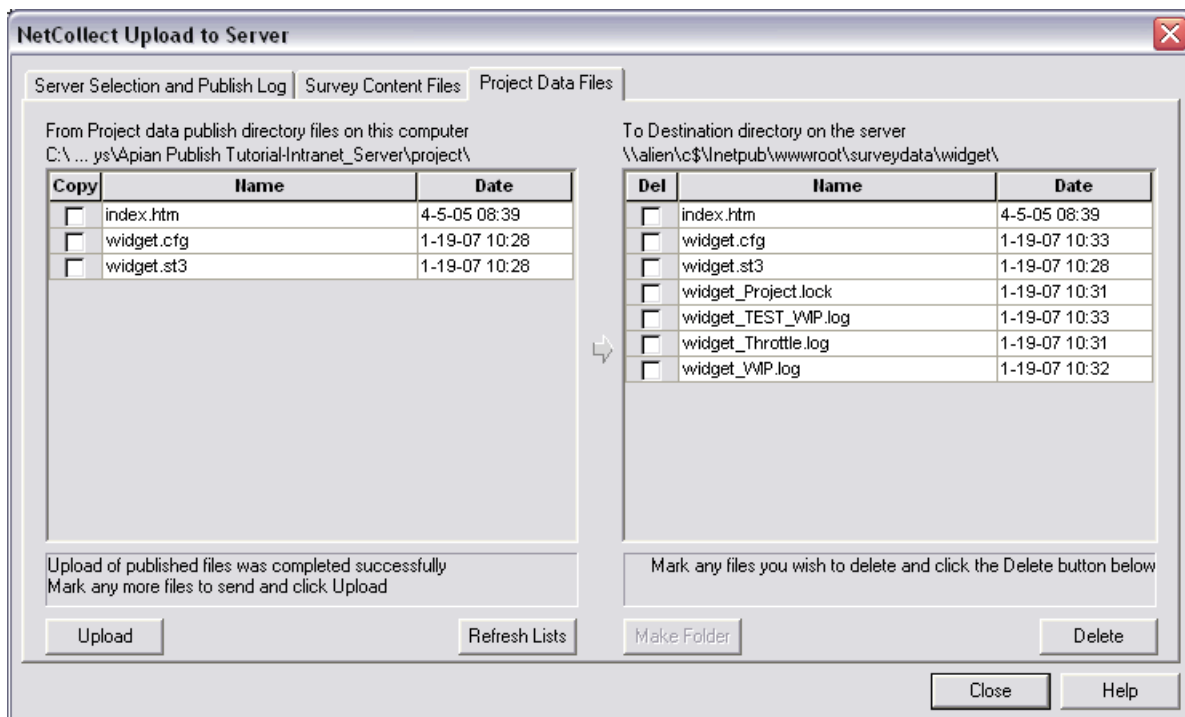
Uploading for the First Time to Your Server

If you've never uploaded after publishing, the folders won't exist yet on your Web server (assuming you're not sharing the folder with other content). In this case, all the files on the left side will be selected for upload, but the Upload button itself will be grayed out.

1. Click the Make Folder button to create it on the Web server

2. Click the Upload button to copy the files to the server

3. Select the Server tab and Launch the Control Panel to set up your survey
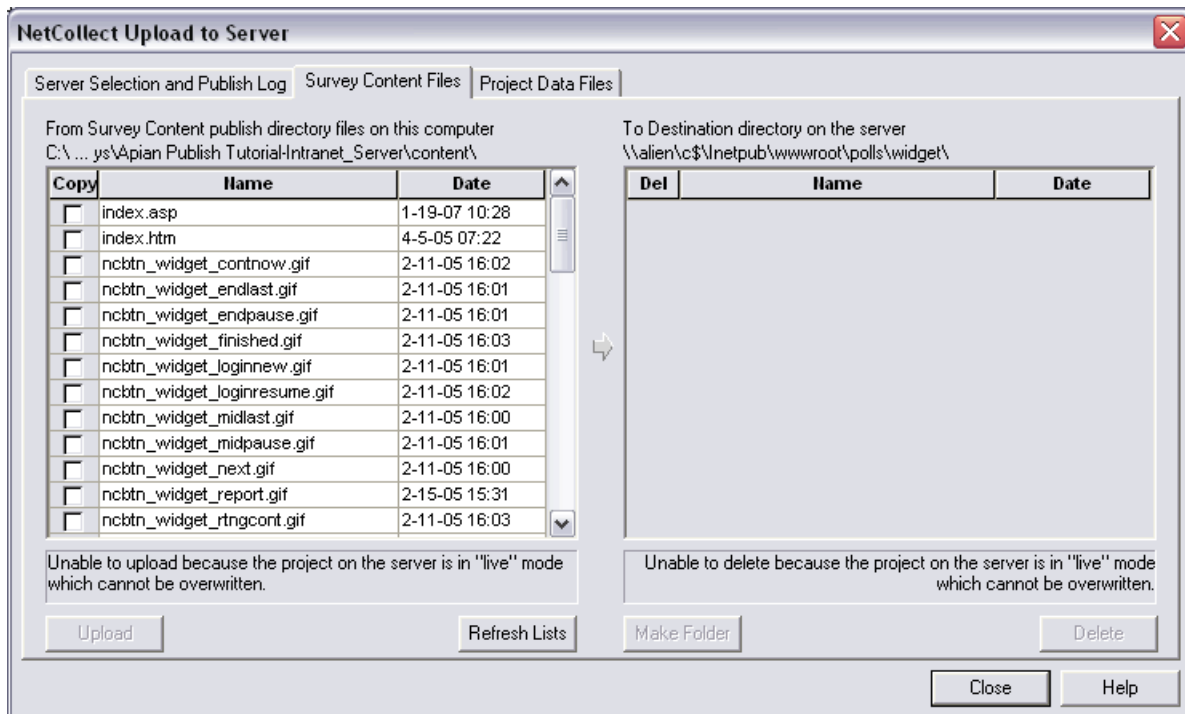
Uploading to Live Surveys on Your Server

Sometimes long-running surveys may require an update to their pipe-in files, or a quick fix needs to be made. Updating live surveys is always risky, so even if you're an experienced NetCollect user, take a lot of care through this process and watch your survey for errors afterward.

1. Using the **Control Panel**, set the survey to **Maintenance Mode** (see page 328)

2. Once respondents are locked out, download any copies of files you're modifying (see page 337)

3. Upload just the modified files back up to the server

4. Using the **Control Panel** switch **Maintenance Mode** back off

SurveyPro won't let you upload unless a survey is in Test mode or Maintenance mode, so you can't just sneak files in from within its system. This is to prevent "file in use" errors which you may see in copying and a respondent may see in clicking Submit.

The most common reason for doing this is updating a password file, which is covered on page 173.

Publishing and Uploading to Your Server

TUTORIAL

QuestionWeb users go to the tutorial on page 308.

This tutorial is a little different from all the rest. In addition to walking you through your own survey files to publish, it is also often used during testing of the initial script installation. Because you'll be filling in dialogs with your server's unique information there are times we'll provide examples, but we cannot provide exactly what to type at each stage. **This means the explanations between numbered steps are much more important in this tutorial than in other lessons.**

If this is part of your initial server installation

At this point you'll need to have completed at least steps 1-3 on page 277. If you have problems along the way, the two most common culprits are paths and permissions. For the paths, check for typos and have your server administrator check that the paths patch the three server perspectives in *Server Paths for the SurveyPro User* on page 38. For permissions, have your server administrator check both the IIS and NTFS permissions in the section starting on page 33.

If you have a working Web Site Definition

If you have a reliable Server Crib Sheet (see page 38) then you'll follow all the sections, simply typing in your values as you go. If instead you already have a tested Web Site defined, the tutorial skips you past that portion.

Everyone

You can use this lesson to post a real project in its "live" location on your server. Or you can use a sample file to post a survey for learning the process or testing your server. Any of the NetCollect tutorial files with "End" in the name are ready for Publish, though you may want to pick a lesson you've completed for familiarity during testing.

If at any point you get an error instead of a success notice, you'll need to stop the tutorial and work with your server administrator to either correct the path or fix the server setup.

In this tutorial you'll learn how to:

Define a Web Server in NetCollect
Set paths for a survey on that server
Upload your survey pages to the server
Run the Web-based Control Panel to set up and manage the survey
Download data

The tutorial assumes you are already familiar with:

No specific NetCollect features

Tutorial Notes	
General	You can save your file and take a break any time you're in the main document screen.

1. Start SurveyPro, enter your initials, and **Open** either your survey file or any sample file with "End" in the name.

2. If you opened a sample file, click **Yes** to open a copy, and save as **YourName Publish Tutorial.SP4**.

3. **Close** the File History dialog.

4. Make sure the questionnaire you're publishing is the active document tab.

Defining a Web Site

What we're going to do is define a Web Site for your server and then select it for this particular survey. The Web Site definition is the part that requires your crib sheet and may require a "debugging" round with your server administrator the first time you publish. However, the good news is that once it's defined, it's saved to your computer and you can use it for all your NetCollect surveys.

1. Bring up the **Web Survey Setup** dialog

2. In the last section, **Server Configuration**, click the **Edit** button.

If you already have a Web Site defined, jump ahead to *Setting this survey's paths* on page 298.

3. Click the **Define New Site** button.

4. Give the Web Site a descriptive **Name**, such as "Intranet," "Test Server," etc.

When SurveyPro lists the site it will include the type of connection and script version, so you don't need to put them in the name.

5. Select either **Local/LAN Disk** or **Remote FTP** according to your crib sheet.

6. Fill in the paths according to your crib sheet, being careful of the punctuation (/ vs. \) and matching each path to the right blank.

Remote FTP sites

7. Click the **Set FTP Connect** button and complete those fields as well. When the fields are entered, click the **Connect** button to verify they work, and then **Close** (don't disconnect).

The Web Site definitions are tied to your personal profile (your Windows login) on this one computer. So, even if you save your FTP password it can't be revealed to someone else when you send them the SP4 file.

Your finished dialog should look something like this:

8. Click the **Test URLs** button.

This checks the URLs you entered and that the server scripts match your version of NetCollect. You should see a success message:
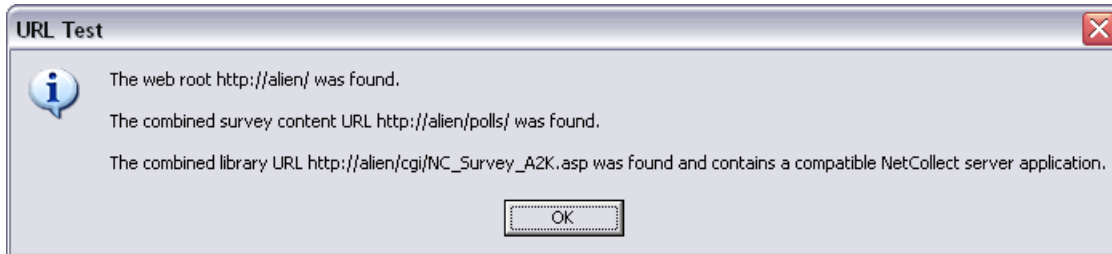

9. Click **OK** to close the test notice.

10. Your definition is now complete, so click **OK** to save it.

Setting this survey's paths

Now that we've defined the Web Site—the piece we'll use for many surveys—we're ready to define the paths for this particular project. Because we just defined a site, NetCollect assumed we wanted to use it.

Everyone who already had a Web Site defined, select your saved server from the drop-down list at the top of the dialog and click **Use Site**.

Once you select a Web Site for a survey, NetCollect fills in a few defaults:
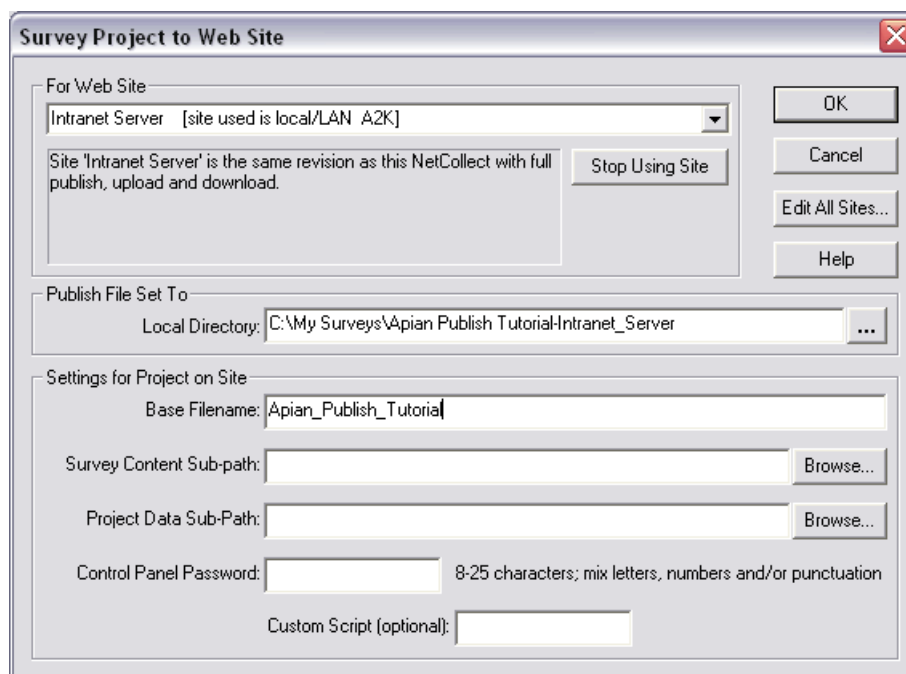
The Local Directory is where NetCollect will create your survey pages before uploading them to the server. By default, it creates a subfolder where your SP4 file is saved, and names that folder with the SP4 file name plus the server definition name. Nobody but you will ever see that path, so generally the default is fine. You do want to have a folder for each survey though, so if you have multiple Web questionnaires in one SP4 file you may need to modify the path.

1. If needed, edit the **Local Directory** field.

Next we have two fields which will be visible to respondents on the server. The Base Filename sets the name of the .ASP pages, and defaults to the SP4 file name. The Survey Content Sub-path is the folder where this survey will reside. Both of these reside on top of the Web Site's Web Root and Survey Contents Node Sub-URL, which in this tutorial's screen captures are http://alien/polls/.

2. Change the **Base Filename** to something which is short, has no spaces, and will not confuse respondents who notice it in their browser address bar.

3. Type a folder name in the **Survey Content Sub-path** which respondents will use to browse to the questionnaire.

You want this Content folder to be reserved for just this survey, with no other Web pages or surveys in it. You can type a new folder name here and NetCollect will take care of creating it during Publish. Note this entry can be more than one level deep, such as "marketing/survey/". (See *Sharing Survey Folders with Other Files on Your Server* on page 288 for why we recommend a folder just for this survey.)
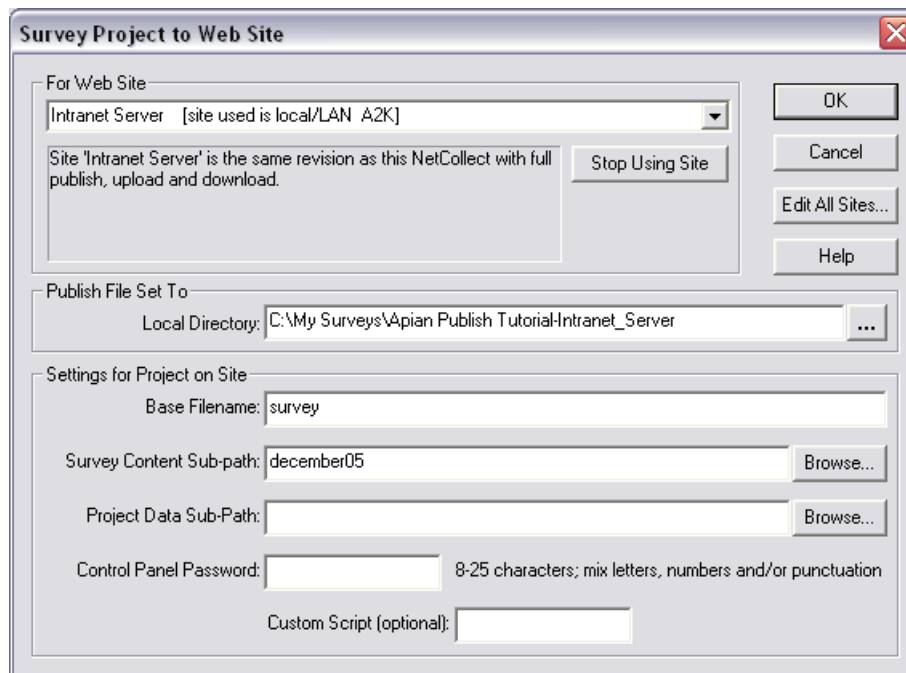
In the example we're showing here, the respondents would be asked to go to this intranet address:

```
http://alien/polls/december05/
```

As soon as they load that address, they will be immediately redirected to the main survey page complete with Base Filename:

```
http://alien/polls/december05/survey.asp
```

The next field isn't visible to respondents, but is visible to anyone else with file access to your server. In most cases, your survey data will be going to a folder path specifically for NetCollect projects—the Project Data Node in the Web Site definition. If you're the only one posting surveys, you can use any naming scheme which makes sense to you. However, if there are multiple NetCollect users posting many surveys, you may want to work out a system where the path includes your department, name, date, or other information which would short-cut conversations about "Who the heck posted this?" As long as someone can figure out who the Project folder belongs to, they can use the configuration file it contains to locate the associated Content folder.

4. Type a **Project Data Sub-path** with no spaces (hyphens and underscores are OK).

5. Type a **Control Panel Password** which you'll use to manage the survey on-line. You have to mix in at least one number or special character with the letters.

Don't worry if you forget the password; it's always here for your reference.

The Custom Script field is very rarely used. Don't worry about it unless your server administrator has done custom development on top of the NetCollect scripts and told you to put something there.

Your completed screen should look something like this:

**6.** Click **OK** to save your survey's publish settings.

Publishing the survey

We're back in the Web Survey Setup dialog, now with a note in the Server Configuration about our settings:
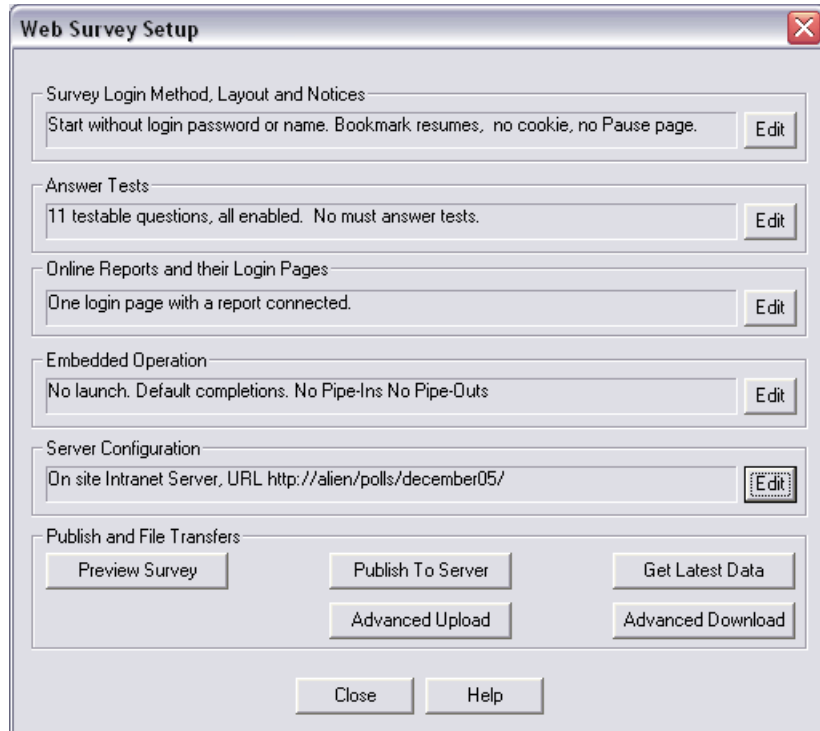
1. Click the **Publish to Server** button.

2. You should see a prompt to create the local publish folder; click **Yes**.

3. The next prompt is to save your SP4 file. Click **Yes** again.

NetCollect just created all the local pages, complete with the filenames and paths you entered in the Web Site definition. All of this is summarized in the Publish log:
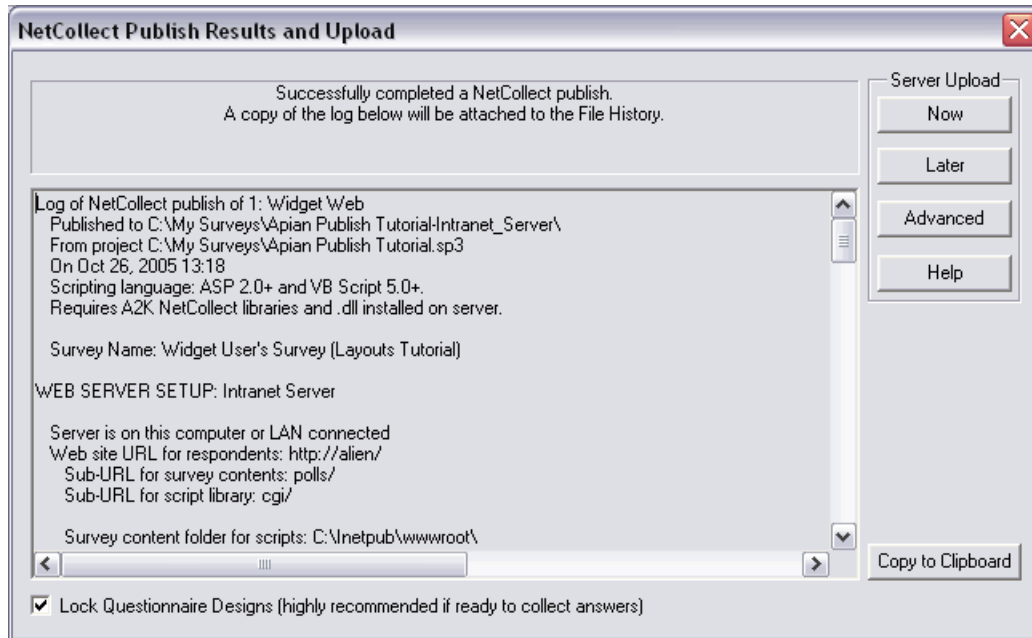
At this point, we haven't uploaded anything to the server. If you were going to have a graphic designer modify the pages you could click the Later button to stop the process at this point. However, in most cases, you'll upload right now.

At the bottom of this dialog is an option to "Lock" the questionnaires. This prevents anyone from accidentally modifying your questionnaires (you can unlock via the Edit menu). See *The Best Way to Mangle Survey Data* on page 14 to understand why we recommend leaving that box marked.

Local/LAN Disk sites Some LAN paths will automatically pick up your network ID and authenticate you to the receiving server. Other LAN shares pop up a "connect as" dialog when you try to access them. If the upload paths you set in the Web Site require separate authentication, take care of that outside of Survey-Pro now.

Everyone **4.** Under **Server Upload**, click the **Now** button.

5. You'll see two prompts to create the Content and Project folders. Click **Yes** for both.

If instead you saw warnings about the folders already having content, you should double-check what's in those locations and/or back up and change your selections before proceeding.

After NetCollect copies the files to your server, it tells you it succeeded and asks if you want to launch the Control Panel. At this point, while the files are present on the server, the survey itself won't run—you need to check in the files first.
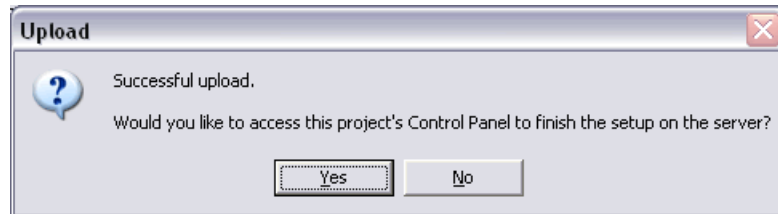
6. Click **Yes** to launch the Control Panel (leave SurveyPro open).

At this point, even though you successfully tested your paths and uploaded, you may get an error on opening the Control Panel. The most common cause for this is that your Web server doesn't have permission to write in your data folder. (Check the "IIS User" columns on page 36.)

You may want to bookmark the Control Panel page if this is a real project.

7. Type the survey administrator password you set in the dialog with the Content and Project paths and click **Log In**.

The Control Panel knows you just did a new upload, so it's prompting you to check in the files.

8. Click **Set Up New Project**.

Now the survey is ready to run.

Testing your survey

When you set up a survey, it starts off in Test mode. As you go through the survey, the only difference between Test and Live is the footer that appears—otherwise all the passwords, skips, piping, etc. are working. While the survey is in Test mode, you will be able to upload revised questionnaires (this is locked out in Live mode) and all data you entered is flagged as "TEST" in the file name. When you switch to Live mode, the passwords you used are made available once again and the activity logs and report counts are cleared.

1. Click on the Survey URL link at the top of the Control Panel.

This opens the survey in a separate browser window. Leave the Control Panel open—we'll be returning to it in just a minute.

2. Go through the survey a couple times to generate a little data.

Your survey probably ends with a SurveyPro generated "Thanks" page. To restart the survey from there, just wipe out everything below the folder name from the URL, removing the page name and session ID such as:

```
survey.asp?P1=3pv1%2D7rv3%2Dyfd
```

A common error is copying the full link including a session ID and using that as the hyperlink to send respondents to a survey. Make sure you only use the folder path!

3. Once you have a couple forms entered, switch back to the Control Panel window.

4. Under **Basic Survey Administration**, select **Activity Log** and click **Go**.

This is a handy tool for seeing how many people have completed the survey and how many partial responses you're accumulating. If you want to make this information visible to clients or colleagues without giving them full administrative access, just use an Online Report (see page 251).

5. Click the **Back to Home** link that appears at the top and bottom of the page.

Downloading and importing data

A survey which works beautifully on the server is useless if there's a flaw in the data. Never skip the full testing loop of pulling and checking data. There's also one last permissions gotcha that hides until this point.

1. Under **Advanced Options**, select **Data Files** and click **Go**.

The only file listed is a "work in progress" WIP file that is actively collecting data. To prevent overlap in data files, NetCollect requires you Archive your files to download them, which will rename the current WIP file with the current date and time, and create a new working file. While we can archive and download straight from the Control Panel (handy for ASCII Pipe Outs), we're going to use SurveyPro instead.

2. Switch back to SurveyPro, where the Web Survey Setup dialog is still open.

3. Click the **Get Latest Data** button.
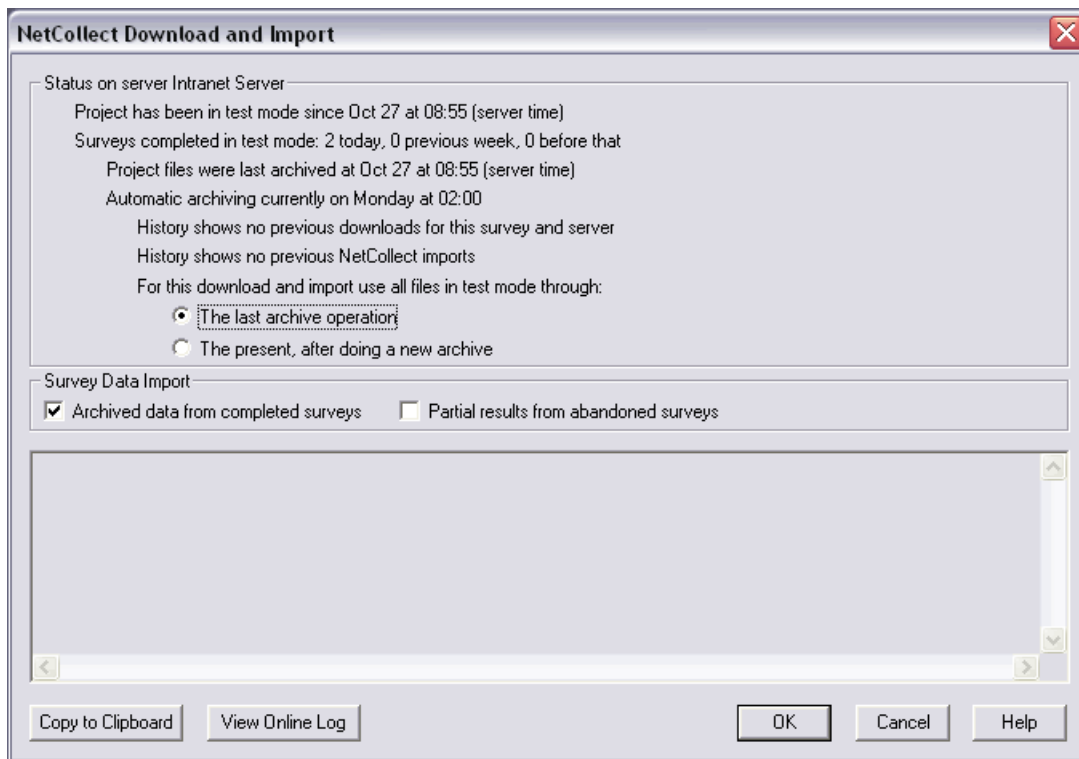
SurveyPro goes out and checks with the server, listing the current status of your project in the top half of the dialog. You can see it relies some on your Import Log History, so if you tend to purge that aggressively, you may want to change your habits.

In our case, there are no archived files to download, so we need to create one first.

4. Set the download option to **The present, after doing a new archive**.

Below that are options to import the completed surveys and partial responses. The partial surveys mentioned here are ones which have "expired" on the server, either because you set the partials to expire in the Control Panel, or because you switched the survey from Test to Live or Live to Closed modes. Right now, even though you may have created a partial response or two, they're still active on the server for respondents to come back and finish.

5. Click **OK** to download and import the data.

6. Review the messages that appeared in the lower half of the dialog.

7. **Close** the Download and Import dialog and **Close** Web Survey Setup as well.

8. Click on the **File History** toolbar button .

9. Select the **Imports** tab.

Here you'll see two logs. One is the general download and import log that was displayed in the dialog we just used. The second log is a detailed report for each SDH file you downloaded—it's always a good idea to check those.

10. Select the **Publishing** tab.

Here we have a copy of the Publish log. This is a handy reference for the assorted survey and Control Panel paths, as well as your administrator password.

Congratulations! You just published a survey. Once everyone is done revising and testing the survey, you just need to switch the Control Panel to Live mode and you're ready to go.